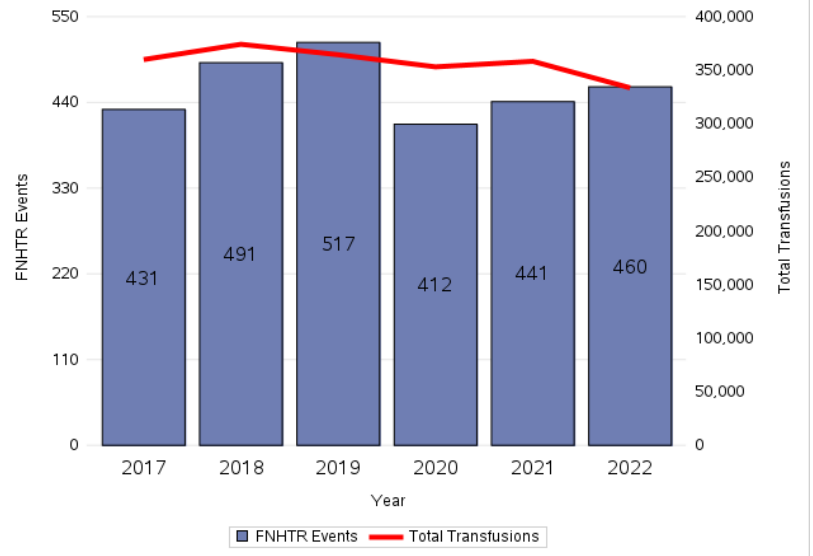
Massachusetts Hemovigilance Program

Febrile Non-Hemolytic Transfusion Reaction (FNHTR) Event Summary

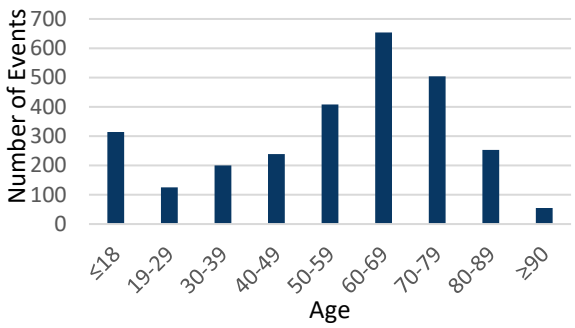
January 1, 2017 – December 31, 2022

FNHTR Events by Year

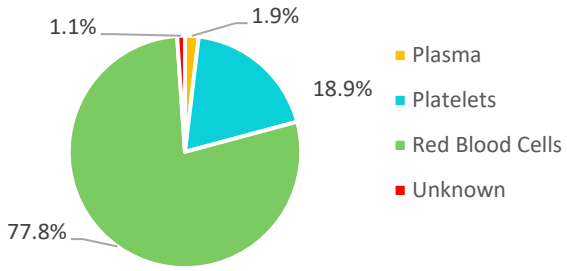


FNHTR Events by Gender		
	Total	Percent
Female	1,355	49%
Male	1,397	51%

FNHTR Events by Age

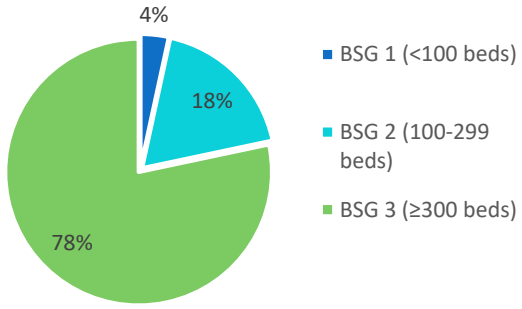


FNHTR by Product Type (2017-2020)

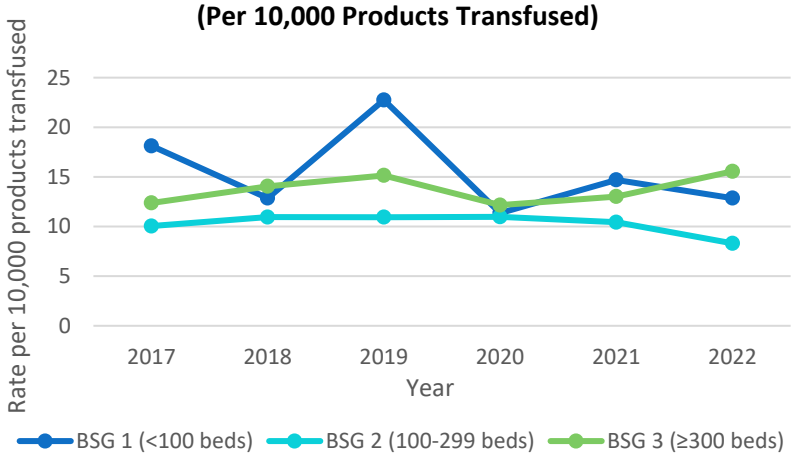


Product Type	FNHTR Event Rate (Per 10,000 products transfused)
Platelets	17.8
Red Blood Cells	14.8
Plasma	1.55
TOTAL	13.5

FNHTR Events by Bed Size Group (2017-2022)



FNHTR Event Rate by Bed Size Group (Per 10,000 Products Transfused)



Data were extracted from NHSN on June 21, 2023.

Summary Findings

- ***More than half (53%) of reactions occurred in adult hospital wards:*** the next most common location types were pediatric wards (10%) and the ICU (8%).
- ***Irradiated, leukocyte-reduced whole blood-derived red blood cells (RBC) accounted for 39% of transfusions associated with a FNHTR:*** leukocyte-reduced whole blood-derived RBC made up 23%, irradiated, leukocyte-reduced apheresis platelets accounted for 14%, and psoralen-treated platelets accounted for 3%.
- ***Most individuals recovered with minor or no sequelae (96%):*** only 0.5% of cases suffered major or long-term sequelae.

As always, report any unusual or unexpected response to blood product transfusion to your Blood Bank

NHSN FNHTR Classification Criteria Table*

	Definitive	Probable	Possible
Case Definition	Occurs during or within 4 hours of cessation of transfusion *AND EITHER* Fever (greater than or equal to 38°C/100.4°F oral and a change of at least 1°C/1.8°F) from pre- transfusion value *OR* Chills/rigors are present.	N/A	FNHTR is suspected but reported symptoms and/or available information are not sufficient to meet the criteria defined to the left. Other, more specific adverse reaction definitions do not apply.
Imputability	Patient has no other conditions that could explain signs/symptoms.	There are other potential causes present that could explain signs/symptoms, but transfusion is the most likely cause.	Other present causes are most likely, but transfusion cannot be ruled out.

*These surveillance case definitions can be found on page 14 of the February 2023 National Healthcare Safety Network Biovigilance Component Hemovigilance Module Surveillance Protocol and are not intended for clinical decision-making.

Resources:
NHSN Hemovigilance Module Surveillance Protocol: https://www.cdc.gov/nhsn/pdfs/biovigilance/bv-hv-protocol-current.pdf
MDPH Hemovigilance Data:
https://www.mass.gov/service-details/reporting-requirements-for-blood-banks-and-hemovigilance-in-massachusetts